

IN THE CLAIMS

Please amend the claims as follows:

1. (original) Solar power system equipped with

- a solar panel comprising

- a first output terminal and a second output terminal,

- a series arrangement of photovoltaic cells arranged between the output terminals,

- ground fault detection means comprising

- a detection circuit equipped with a series arrangement SA comprising

- a first and a second ohmic resistor and connecting the first and second output terminals,

- a first signal generator for generating a signal S1 that represents the voltage difference ΔV between a common terminal of the first and the second ohmic resistor and the second output terminal,

- a safety circuit coupled to the ground fault detection means for changing the operating state of the solar power system in dependency of the signal S1,

characterized in that the ground fault detection means is further equipped with

- a third ohmic resistor comprised in the series arrangement SA,
- a switching circuit part comprising a switching element and shunting the third ohmic resistor,
- a control circuit coupled to a control electrode of the switching element for controlling the conductive state of the switching element, and
- a second signal generator coupled between the first signal generator and the safety circuit for generating a second signal S2 representing leakage resistance between the solar power system and its environment.

2. (original) Solar power system according to claim 1, wherein the solar power system further comprises a DC-AC-converter coupled to the first and second output terminal.

3. (currently amended) Solar power system according to claim 1-~~ex~~ 2, wherein the third ohmic resistor is coupled between the second output terminal and the second ohmic resistor.

4. (currently amended) Solar power system according to claim 1, ~~2~~ ~~ex-3~~, wherein the second signal generator comprises a microcontroller.

5. (currently amended) Solar power system according to ~~claim 1~~
claim 1, wherein the solar power system comprises a housing
containing the ground fault detection means and the safety circuit.

6. (currently amended) Solar power system according to claim 2
~~and 5~~, wherein the housing further contains the DC-AC-converter.